SECTION 1
INTRODUCTION

1.1 BACKGROUND

State Route 89A (SR 89A) is a five lane urban arterial roadway that serves as the primary transportation corridor in west Sedona. This facility is a major north-south roadway serving the regional traffic within the Verde Valley and other areas. SR 89A also accommodates local traffic with access to the numerous commercial properties that flank both sides of the highway. The combination of local short trips with regional trips has resulted in high through volumes on the roadway and a significant number of turning volumes. The location map, included as Figure 1.1, shows the location of this corridor in relation to the major transportation corridors of the region.

At the initiation of this study a Needs Based Implementation Plan (NBIP) for the State Route 179 (SR 179) corridor had been completed. The NBIP identified improvements that would be constructed along the SR 179 corridor from the intersection with SR 89A (known as the "Y") to south of the Village of Oak Creek. The improvements identified included converting twelve (12) conventional intersections along the corridor to roundabout intersections. Throughout the duration of this study the Final Design of the improvements along SR 179 was under way, and construction of the improvements is expected to begin in Spring 2007. The SR 179 improvements includes reconstruction of two intersections to a roundabout configuration along SR 89A that are adjacent to the study area of this project, namely Brewer Road and the SR 179 intersection known as the "Y". The construction of these roundabouts is expected to be completed in Summer 2008, and therefore is considered an existing situation for the Soldiers Pass Area Traffic Study.

The Soldiers Pass Area Traffic Study encompasses a section of SR 89A within west Sedona from Posse Ground Road to Airport Road. This study also includes an evaluation of traffic conditions from Airport Road to Brewer Road in order to understand any traffic pattern changes that may occur due to any alternatives proposed within the study area. The vicinity map, included as Figure 1.2, shows additional detail along SR 89A within the study area of this project.

1.2 PROBLEM STATEMENT

Many local trips within west Sedona, whether it be by auto, bike, or foot, typically use SR 89A because few alternative routes are available, or those that are available are significantly removed from SR 89A. A significant number of trips accessing SR 89A from the surrounding neighborhoods are forced to travel on the highway less than one-half mile adding trips to the corridor over and above the regional traffic. The high volume of traffic on SR 89A reduces the number of gaps in traffic where turning vehicles from a cross road can safely and efficiently enter the highway.

In order to reduce travel delays for turning traffic and improve flows on SR 89A, the City of Sedona and the Arizona Department of Transportation (ADOT) have implemented traffic signals along SR 89A. The originally adopted Sedona Community Plan indicated that new signal locations must be carefully evaluated, and the minimum spacing of traffic signals should be one-quarter mile. Seven new traffic signals have been installed on SR 89A since 1991; however, the guidelines will not allow for traffic signals to be implemented on SR 89A at the exit point of each individual neighborhood.

Current and projected traffic along SR 89A is expected to warrant traffic signals at numerous intersections along SR 89A, and the City of Sedona has received inquiries requesting consideration for the installation of new traffic signals. Within the study area, there is currently a traffic signal at Soldiers Pass Road, however future traffic conditions are expected to warrant traffic signals at the intersections of Saddlerock Circle and Airport Road. As shown in Figure 1.2, these two intersections are located less than a quarter-mile from the existing traffic signal located at Soldiers Pass Road. Therefore, the installation of traffic signals at Saddlerock Circle and Airport Road, while maintaining a traffic signal at Soldiers Pass Road, would not be desirable because of the close proximity of these intersections to each other.

As traffic volumes and opportunities for development within the study area continue to grow, the need for an ultimate solution becomes greater. The ultimate roadway corridor needs to balance the desire for safe and convenient multi-modal access to SR 89A while providing efficient mobility to the entire region.

The purpose of this traffic study is to propose solutions within the study area that can provide convenient access to SR 89A for users within the study area, while maintaining favorable traffic operations along the corridor. Proposed solutions must be evaluated to ensure they are compatible with the access management objectives of the community plan and current engineering practices, while serving as a guide for future development or improvements along SR 89A.

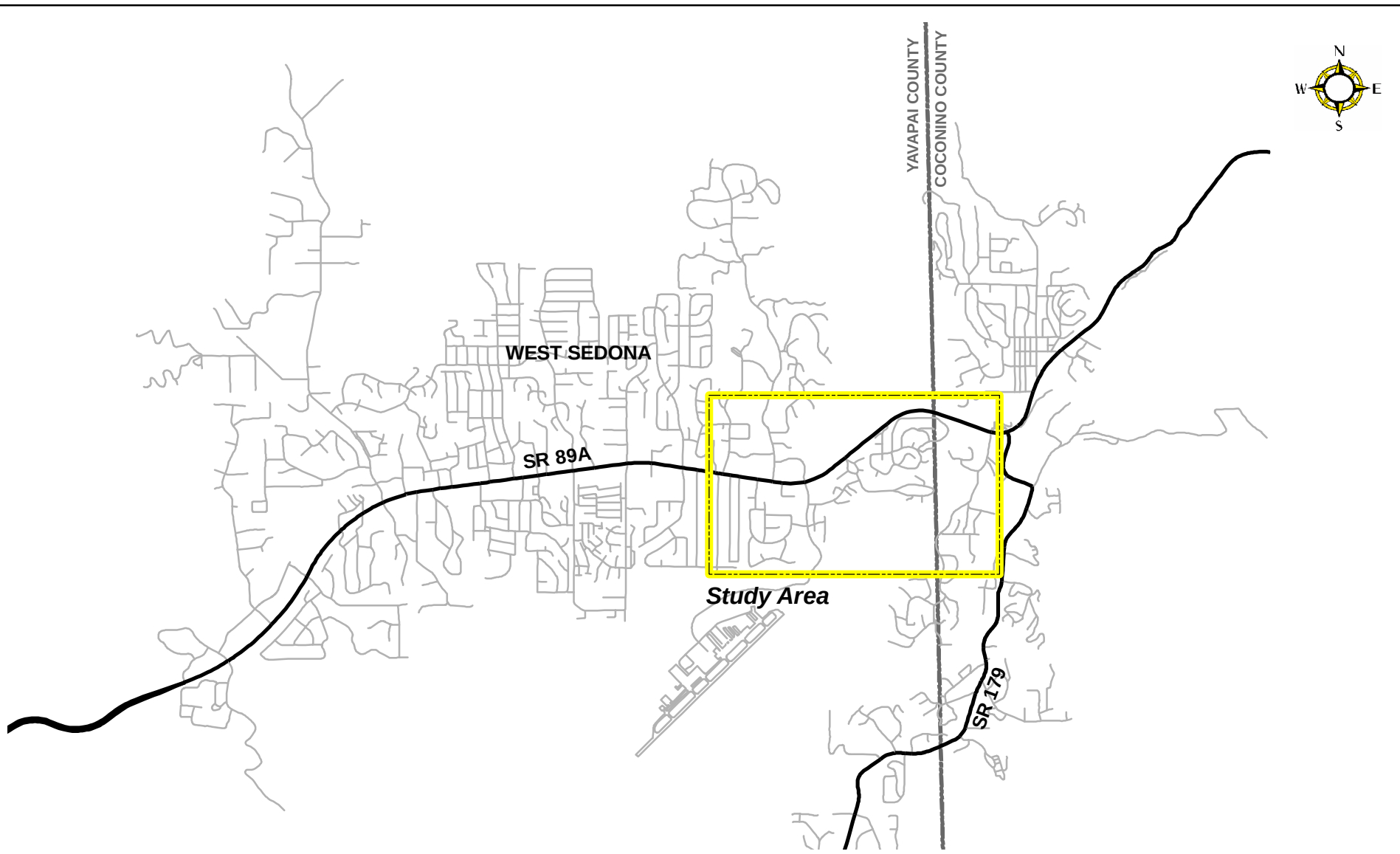

Figure 1.1

Location Map

Soldiers Pass Road Area Traffic Study

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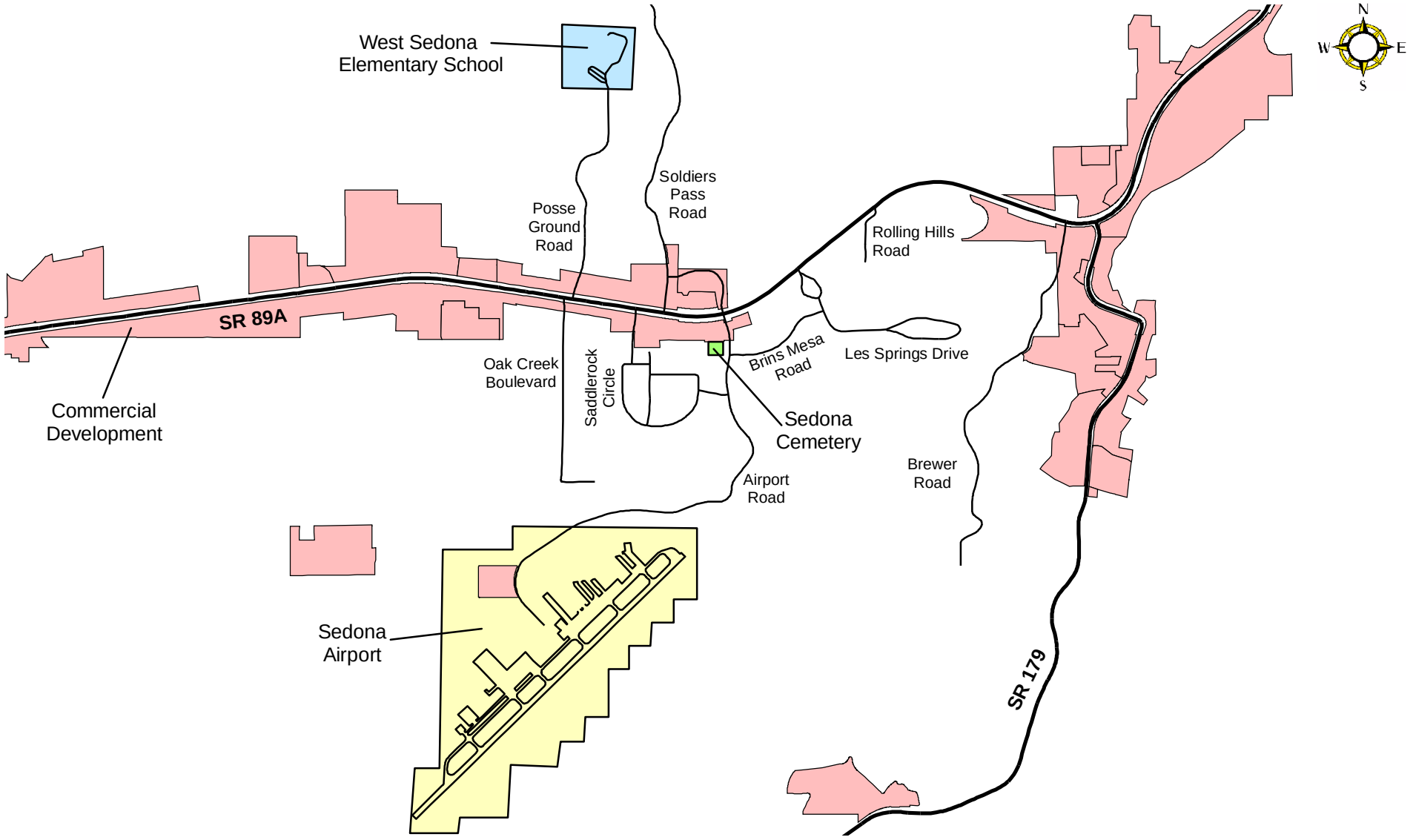

Figure 1.2

Vicinity Map

Soldiers Pass Road Area Traffic Study

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